Attachment E

REDACTED – For Public Inspection

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	**CC Docket No. 01-339,**
Review of the Section 251	)	**No. 96-98 &**
Unbundling	)	**No. 98-147**
Obligations of Incumbent Local	)	
Exchange Carriers	)	
	)	

DECLARATION OF MICHAEL E. LESHER AND ROBERT J. FRONTERA ON BEHALF OF AT&T CORP.

I. BACKGROUND

1. **Michael E. Lesher**. My name is Michael E. Lesher. My business address is 900 Routes 202/206 North, Room 2A101, Bedminster, NJ 07921. I am employed by AT&T as a Division Manager in the Local Network Services Organization (LNS). My current duties include national planning and management for AT&T's local network connectivity. This position bridges AT&T's local product requirements with the connectivity planning required in order to build and/or lease the assets necessary to deliver upon these requirements. In addition, I have lead responsibility for managing the leased expense AT&T must pay the ILECs in the provision of AT&T's local products. This requires a thorough understanding of how our local network is built and where leased services are required.

2. I hold a B.S. degree in Accounting from Virginia Polytechnic Institute and State University, and an M.B.A. in Finance and Computer Science from the Southern Methodist University.

3. My AT&T career began with Southwestern Bell Telephone Company in 1979, where I participated in settlement audits of independent telephone companies and later was a database manager in SWBT's Dallas Data Center. At divestiture I transferred to AT&T Communications, where I had regulatory accounting responsibility for the Southwestern States territory. In 1986 I assumed responsibilities for regulatory accounting and access management issues in the South Central States territory. In 1992, I accepted a headquarters position responsible for leading a national team in pursuit of access charge reductions. I joined AT&T's Local Services Division in 1995 where I was responsible for enabling local market entry by ensuring that rates AT&T paid to incumbent local exchange companies for the use of their network were cost based. In 2000, my job was further expanded to include the national planning responsibilities for the Local Network Services organization. In my capacity as LNS Division Manager of Local Network Connectivity, I have personal knowledge of AT&T's Local Network Services ("LNS") configuration, the extent of AT&T's facilities and equipment deployment and its use of leased assets, and the utilization levels of AT&T's facilities, including the levels of utilization that would be adequate to recover AT&T's investment in those facilities.

4. **Robert J. Frontera**. My name is Robert J. Frontera. My business address is 429 Ridge Road, Room 295, Dayton NJ 08810. I am employed by AT&T as a District Manager in the Local Services Division. My current duties include the planning and budgeting of optical networks West of the Mississippi. Planning activities include and are not limited to designing of Sonet rings, fiber, DCS, collocates, nodes, power, alarming, and timing.

5. I hold a B.S. degree in Electrical Engineering Technology from the City University of New York, and a MS in Telecommunications Management from the Steven's Institute of Technology.

6. My AT&T career began with Teleport Communications Group in 1991, where I was within the engineering department responsible for developing the engineering designs to provide telemetry links to all network elements within the network. In 1998, Teleport Communications Group was merged into AT&T Communications. At that time I transferred into Network Planning. Within Network planning, I had planning, budgeting and capacity management responsibilities for optical, DCS, Fiber, collocate, and nodes West of the Mississippi.

7. In my capacity as District Manager Optical Network Planning West, I have personal knowledge of AT&T's Local Network Services ("LNS") configuration, the extent of AT&T's facilities and equipment deployment, and the utilization levels of AT&T's facilities, including the levels of utilization that would be adequate to recover AT&T's investment in those facilities.

II. INTRODUCTION AND SUMMARY

8. We are submitting this declaration in an effort to provide a factual context that would assist the Commission in assessing the validity of a number of claims that incumbent LECs ("ILECs") have made in the past, and that we assume are likely to be made again here. In particular, we are aware that the ILECs have claimed that CLECs' ability to lease unbundled elements (UNEs), and in particular the ability to lease a "platform" of UNEs (UNE-P) and high capacity loops and transport UNEs, deters CLECs' incentives to invest in their own facilities. We are also aware that the ILECs claim that CLECs will not be impaired in their ability to compete if the Commission were to eliminate or restrict access to UNEs such as high capacity loops and transport, loop/transport combinations (called "EELs"), and switching (and hence the UNE-P).

9. In an effort to throw a factual light on these claims, this declaration will begin first by describing in some detail the extent of AT&T's local facilities deployment. As we show, AT&T has invested billions of dollars in local facilities since passage of the 1996 Act.[1] Those facilities include over 115 local switches, over 17,000 fiber route miles (consisting of millions of miles of fiber strands), and collocations AT&T has established in over 1000 ILEC end offices in 66 cities. In those collocations, AT&T has deployed over **[proprietary begin] [proprietary end]** digital loop carriers ("DLCs") to terminate unbundled loops, approximately **[proprietary begin] [proprietary end]** DS1 to DS3 multiplexers, and over **[proprietary begin] [proprietary end]** optical concentration ("OC ") multiplexers. By any measure, this shows a serious commitment by AT&T's to pursue facilities-based entry whenever it has been economically and logistically practical.

10. Contrary to the ILECs' claims that the ready availability of UNEs at TELRIC rates, and particularly UNE-P, diminishes CLECs' incentives to invest in their own facilities, we demonstrate below that AT&T has invested at least as heavily in facilities in states such as New York, where AT&T has made extensive use of UNE-P, as in California and other states where there has been little to no UNE-P entry because UNEs have been priced so high as to be effectively unavailable. For example, AT&T has deployed nearly twice as many local switches in New York City as in Los Angeles, and has the same number of local switches in New York City as in Los Angeles and San Francisco combined, despite the fact that AT&T currently serves close to **[proprietary begin] [proprietary end]** customers over the UNE-P in New

[1] All figures in this declaration, unless otherwise noted, are as of year end 2001, and address only the Local Network Service managed network.

York, as compared with **[proprietary begin]** **[proprietary end]** of business UNE-P customers in California. *See infra* ¶¶ 48-50.

11. Second, our declaration will demonstrate that, despite AT&T's commitment to facilities deployment and to use its own facilities to provide local services, AT&T's existing local facilities are substantially under-utilized. In other words, the extent of AT&T's facilities deployment substantially overstates AT&T's actual ability to compete effectively with the incumbent LECs. Critically, AT&T's inability to fully utilize the assets its has deployed serves as a disincentive to further local investment. Our declaration explains that the reason for this underutilization, however, is not the availability of UNEs, but rather the practical *un*availability of UNEs. For this reason, AT&T would remain significantly impaired in its ability to compete if the existing list of UNEs were diminished or the permitted uses of these UNEs were not expanded. Indeed, one of the key factors in AT&T's inability to use its facilities efficiently is the current restrictions that the Commission has permitted ILECs to impose on its use of unbundled switching and loop/transport combinations ("EELs").

12. For example, despite AT&T's business planning and its reluctance to deploy facilities unless there are prospects to achieve competitive economies of scale, AT&T's existing DLCs (which terminate unbundled DS0 loops) serve only **[proprietary begin]** **[proprietary end]** of their capacity nationwide, and AT&T's local fiber transmission facilities and switches are **[proprietary begin]** **[proprietary end].** *See infra.* These inefficient utilization levels validate the fact that AT&T has been and continues to be impaired in its efforts to compete. And because AT&T has generally been unable to aggregate sufficient volumes of traffic to earn reasonable returns on the investments it has already made, it is increasingly difficult to justify deploying additional collocations, transmission facilities, or

switching until the current impairments are rectified. Indeed, in many cities, the current outlook for facilities utilization makes the economics so grim that AT&T must abandon many of its collocations, for the simple reason that they have no imminent prospect of becoming profitable.

13. As discussed more fully below, the under-utilization of AT&T's facilities results from the impact of three predominant factors, none of which relate to so-called "failed business plans" of other CLECs. Rather, these factors relate to the lack of market conditions that are conducive to investment. In general terms, the three factors limiting continued robust investment are the following:

(1) *CLECs' inability to efficiently and economically move customers from the ILEC network to the CLEC network* (caused by "hot cut" provisioning problems, threats of high nonrecurring charges for hot cuts, and the effects of the "carve out" on the availability of unbundled local switching);

(2) *The incumbents' increasing deployment of DLC in customer loops*, which makes access to loops even more difficult and expensive and substantially narrows the market CLECs can address in individual ILEC Local Serving Offices ("LSOs"); and

(3) *CLECs' inability to efficiently aggregate demand to enable them to attain scale economies* through the use of hubbed network architectures, resulting from use restrictions on EELs to provide dedicated services, the related ban on co-mingling, and the threatened withholding of high capacity transport and loops as UNEs.

14. This declaration is organized as follows. In Part III we describe the extent of AT&T's current local facilities deployment. Part III.A describes in general terms the

configuration of AT&T's Local Network. Part III.B provides data on the numbers and types of equipment and facilities deployed in AT&T's local network. Part III.C provides estimates of the magnitude of those investments in dollar terms. Finally, Part III.D refutes the ILECs' claims that the ready availability of UNEs, and particularly of the UNE-P, diminishes CLECs' incentives to invest by comparing AT&T's investments in New York, where the UNE-P is economically available and is widely used, with California, where there has been no residential UNE-P entry because UNEs were priced so high as to be effectively unavailable.

15. Part IV will describe and analyze the current under-utilization of the local facilities and equipment that AT&T has deployed. In Part IV.A we will describe the extent of utilization of the three main components of AT&T's local network: (1) local switches; (2) collocations and related equipment; and (3) AT&T's transmission facilities (SONET rings). In Part IV.B we will explain the critical role played by three factors – the hot cut problem, the prevalence of DLC loops, and the restrictions on purchasing loop-transport combinations and "co-mingling" of traffic – in preventing AT&T from adequately utilizing its existing facilities and from aggregating sufficient traffic volumes to justify deployment of additional equipment and facilities. Finally, in Part IV.C we will demonstrate that the "capital crunch" facing all CLECs, including AT&T, exacerbates these problems.

III. DESCRIPTION AND ANALYSIS OF AT&T'S LOCAL FACILITIES DEPLOYMENT.

A. Configuration of AT&T's Local Network.

16. In order to put the statistics provided in this declaration in proper perspective, it is useful to begin with a brief description of the typical configuration of AT&T's local network.

(Exhibit 1, attached, provides a schematic rendering of the information supplied in this description.)

17. At its most basic core, AT&T's local network, like all networks, consists of switches interconnected by core (very high capacity) transmission facilities. When AT&T enters a particular local market on a facilities basis, it begins by deploying a centralized local switch (such as a Lucent 5ESS or a DMS100 switch), and (where feasible and economic) self-provisioned facilities to points of traffic concentration (or nodes) where traffic is aggregated but not switched. Typically, the facility will support a bi-directional (*i.e.*, redundant) fiber ring architecture employing SONET technology generally having a maximum capacity of 48 DS3s in a single direction.[2] That facility will typically be deployed to collocations in a densely populated portion of a market, usually the "downtown" business district, and interconnect at least one AT&T local switch with one or more ILEC central offices and permit extensions to high capacity customer locations.

18. It is only in rare cases that AT&T can serve all its customer demand in a building using its own facilities (AT&T terms this "Type I access"). In order to make it feasible to do so, an AT&T fiber ring must not only pass sufficiently close to a building with sufficient customer demand to merit a fiber extension (and the associated transmission equipment), the conditions must also be conducive to facilities construction[3] and the customer must be willing and able to

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[2] "A 'SONET ring' is a form of 'self-healing' network architecture that provides unique reliability for customers because it employs diverse routing to ensure continued service even when particular segments of the ring are accidentally cut or experience other technical difficulties." Fea-Taggart Use Restriction Dec., ¶ 13.

[3] For example, AT&T must be able to acquire necessary rights of way and a permit from the locality to build the facility, and the building landlord must consent to the deployment of

wait to place that demand onto the newly deployed facility. Fea-Taggart Use Restriction Dec., ¶¶ 12-20.

19. Needless to say, it is quite rare that all of these conditions are satisfied. Thus, there are only about **[proprietary begin] [proprietary end]** commercial buildings *nationwide* where these preceding conditions are met (out of approximately 3 million commercial buildings nationwide) so that AT&T can serve all of its customers' demand in the building solely with Type I access. To some extent, this occurs because AT&T cannot obtain access to all customers in the building through common space. Indeed, in about **[proprietary begin] [proprietary end]** of the instances where AT&T is serving all of its customer demand in a building using exclusively its own facilities, AT&T could not deploy equipment in the building's common space, and thus its fiber runs *only* to the customer's floor and cannot be used to provide service to other tenants in the building.[4] Fea-Taggart Use Restriction Dec., ¶¶ 30-31.

20. For all these reasons, AT&T accesses the vast majority of its customers via DS0 (*i.e.* copper pairs), DS1 and DS3 loops leased from the ILEC, to which AT&T connects at collocated space in ILEC central offices. AT&T has established two types of collocations in its network. At locations where it is efficient to do so (because there is sufficient customer demand

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equipment in the common space of the building, or at least permit the use of "risers" within the building to access a specific customer's floor.

[4] This is true even in New York City, the area where AT&T deployed the greatest amount of facilities. Overall, Verizon's network serves 7,354 buildings in LATA 132 over fiber while CLECs serve fewer than 1,000 buildings. Individually, AT&T serves **[proprietary begin] [proprietary end]** buildings in New York, and only **[proprietary begin] [proprietary end]** of those buildings using exclusively its own facilities. The overwhelming majority of the buildings AT&T serves are served by a combination of AT&T "fiber to the floor" and leased ILEC facilities.

and the distance to an AT&T ring is relatively short), AT&T deploys optical transmission equipment that connects the collocation to an AT&T fiber facility, which in turn carries the traffic to its switch. AT&T refers to this as a "hub" collocation arrangement (this type of collocation is designated FB, for "facilities-based," in the attached exhibit).

21. In order for AT&T even to begin considering deploying its own fiber to a collocation, AT&T must be able to fill such a facility – which would be at least an OC48 – to a utilization level of **[proprietary begin] [proprietary end]**. Otherwise, its unit costs would be far too high compared to those of the ILECs. While an OC48 can theoretically carry 48 DS3 equivalents of traffic, due to the need to maintain bi-directional redundancy, engineers would consider an OC48 ring fully utilized at half that amount of traffic, that is at 24 DS3 equivalents. This means that to achieve a minimal **[proprietary begin] [proprietary end]** utilization level on the fiber, AT&T would have to have at least **[proprietary begin] [proprietary end]** revenue producing DS3 equivalents of traffic at a collocation to consider deploying fiber to that collocation.

22. The vast majority of AT&T's collocations, however, do not have that level of traffic. Accordingly, in order to aggregate sufficient levels of traffic to utilize its own fiber, AT&T must typically hub traffic from **[proprietary begin] [proprietary end]** "non-hub" collocations to a hub collocation. These non-hub collocations are linked to a hub collocation via a fiber facility that is leased from the ILEC.[5] This strategy increases the footprint that AT&T can serve. Notably, however, AT&T has only been able to establish collocations at about 10% of the

[5] Virtually all interoffice transport between ILEC offices is fiber based, regardless of the transmission capacity (*e.g.*, DS1 or DS3) that an individual CLEC may employ to connect the two collocations.

buildings where the RBOCs' loops terminate. For ease of description we will treat each of these collocation types separately in the following description.

23. **Access To Customer Premises Via Hub Collocations**. There are essentially three methods by which AT&T provides local service to a customer's premises via a hub collocation. *First*, to reach medium and larger size business locations, AT&T leases high capacity loops (DS1s and DS3s) from the ILEC. In the case of leased DS3 loops, those loops terminate on a DSX-3 panel and from there enter AT&T's collocation cage over "0 mileage" DS3 cross-connect facilities connecting to an AT&T DSX-3 panel. Once in the cage, the DS3 traffic is multiplexed further by AT&T-owned transmission facility interface equipment (e.g., OC48 multiplexers) located in AT&T's collocation cage. From there, the traffic is connected to the core AT&T local network (*e.g.*, a 5E switch) via an AT&T fiber facility.

24. In the more common case, AT&T leases one or more DS1 loops[6] from the ILEC to serve a customer, and the loop is connected in the ILEC office to a DSX-1 panel that permits cross-connection to a 3/1 multiplexer. That multiplexer aggregates individual DS1 loops and is in turn connected via a DSX-3 panel to a "0 mileage" ILEC-provided DS3. This "0 mileage" DS3 provides the connection between the ILEC DSX-3 panel and the AT&T DSX-3 panel in its collocation. Once in AT&T's collocation, this DS3 facility is treated in the same manner as traffic originating on the DS3 loops.

25. *Second*, to reach small businesses that have insufficient traffic volumes to justify use of a DS1 or higher capacity loop (and eventually, although not today, to reach residential

[6] Such loops may be either unbundled elements, or, more commonly, special access channel terminations that provide the equivalent function although at generally a much higher price.

customers), AT&T may lease copper wire loops (DS0s) from the ILEC.[7] Such customers' loops first terminate on the ILEC's main distribution frame, or MDF, and then are cross-connected to the appropriate cable pair connecting to the collocation cage. The copper connecting facility terminates on an AT&T DLC (Digital Loop Carrier) in the collocation cage. AT&T's DLC concentrates and multiplexes the traffic from a DS0 level to a DS1. AT&T then uses 3/1 multiplexing equipment located in the collocation to multiplex the traffic up to a DS3 level, and then connects to the AT&T optical multiplexer through a DSX-3 panel as explained above.

26. *Third*, in some cases AT&T seeks to serve customers served by a remote ILEC central office that has insufficient demand to justify a collocation. In that situation, AT&T obtains access to those customers' premises by purchasing a combination of a loop and interoffice transport from the ILEC to connect the customers' premises to an AT&T hub collocation. In an efficient operating environment, this would be accomplished by employing an Enhanced Extended Link (or EEL). However, the Commission's "interim" rules make this possible only if AT&T can satisfy complicated "safe harbor" requirements. As documented elsewhere, Carroll-Rhodes Use Restriction Dec., ¶¶ 11-22, this is rarely, if ever, possible. In the vast majority of circumstances, because of the existing use restrictions and the related ban on co-mingling AT&T cannot purchase this functionality as a combination of UNEs; rather, it must typically purchase these combinations from the substantially more expensive ILEC special access tariffs.

[7] In this simplified example, I am assuming that neither DLC nor IDLC exists on the loop. Were IDLC to exist, the customer would need to be transferred to an all-copper facility (assuming one existed and could support service) or the feeder facility would need to be de-multiplexed and terminated as an analog interface on the main distribution frame ("MDF") (or an intermediate distribution frame) and then cabled to AT&T's collocation.

27. **Access to Customer Premises Via Non-Hub Collocations.** About **[proprietary begin] [proprietary end]** of AT&T's collocations are non-hub collocations, *i.e.* no AT&T fiber facility terminates directly on the collocation. Because the demand currently anticipated from such collocations does not justify building its own facility, AT&T obtains access to customer premises by leasing DS0, DS1, or DS3 loops from the ILEC in the same manner as with hub collocations, but with one key exception: instead of using an AT&T multiplexer, customers' traffic is multiplexed by the ILEC and placed onto an ILEC provided facility that extends to the hub collocation.

28. In order to transport traffic from its non-hub collocations to the hub collocations, AT&T purchases at least **[proprietary begin] [proprietary end]** voice grade equivalents ("VGE") of capacity from the ILECs to make such connections, and virtually all are purchased as special access from ILECs, with the remainder purchased from third parties. While AT&T would prefer to deploy its own fiber to these locations, the impairments we described above are simply too significant and the opportunities to employ alternative supply are practically non-existent. In fact, AT&T transports traffic to and from **[proprietary begin] [proprietary end]** of its non-hub collocations over non-ILEC alternative facilities, and relies exclusively on ILEC facilities to reach the remaining collocations.

29. **Advanced Services**. Although we are aware that the ILECs have focused much of their rhetoric on so-called "advanced services," from a network point of view there is no fundamental difference between transmission facilities deployed for so-called advanced services and traditional telephony. Both services are provided to the customer over the same types of conductors – copper pairs, fiber, or a combination of both (generally copper distribution

interfaced with shared fiber feeder). The only difference lies in the bandwidth that the ILEC's choice of transmission equipment makes available to the customer.[8]

30. AT&T's plans to employ DSL technology to provide service call for it to place splitters and a DSLAM in its collocations – centralized locations where it can at least have access to customers served by all-copper loops. In such cases, copper loops (of conforming electrical characteristics) are terminated on the splitter, and the high frequency output of the splitter is then connected to the DSLAM. The DSLAM, in turn, interacts with the CPE at the customers' premises to manage the digital bit stream transfer. The DSLAM formats and multiplexes the transfer of the communications to and from a high capacity transport facility connected to an AT&T packet switch. The low frequency output of the splitter will either be terminated on AT&T DLC (and routed to an AT&T circuit switch) or placed on a connecting facility to an ILEC switch port. To the extent a customer is transmitting voice communications in the high frequency spectrum of the loop, the AT&T packet switch demultiplexes the voice ATM cells and connects them to an AT&T voice gateway that provides an interface to the circuit switched

[8] The mere deployment of DSL technology does not create an advanced service. Instead, it permits ratepayer-funded loop plant to be more fully utilized, allowing customers to send and receive more bits per unit of time without wholesale replacement of the existing loop plant. Notably, although the ILECs could have chosen to deploy a network architecture that places all communications collected at a remote terminal ("RT") into an ATM format for transmission, they instead have chosen to deploy a splitter in remote terminals so they can continue to relegate circuit switched voice services to the low frequency spectrum transmission resources of the loop and use the high frequency resources of the loop (which could carry traditional voice service) to provide only services based in packet technology. The simple fact of the matter is that *both* the low and high frequency spectrum transmissions arrive at the ILEC LSO as a stream of 1s and 0s and that both could be packetized and travel on one fiber strand. Thus, both the low and high frequency signals are equally advanced (or traditional), because both are basic transmission functions that deliver digital signals (1's and 0's) to the central office.

network. The remaining ATM cells are connected to appropriate facilities to other ATM switches.

B. The Extent Of AT&T's Facilities Deployment.

31. With this background in mind, we turn now to a description of the extent of AT&T's local asset deployment as of the end of calendar year 2001. For these purposes, AT&T's facilities and equipment may usefully be divided into three categories: (1) switches; (2) collocations and related equipment; and (3) transmission facilities.

1. Switches

32. AT&T has deployed a total of 116 local telephony switches nationwide, in addition to 12 switches formerly owned by Media One which are being integrated into the AT&T local network. The switches have the capability of serving customers in over 66 markets (metropolitan areas) nationwide. Nevertheless, the switching resources are highly concentrated, with **[proprietary begin] [proprietary end]** cities collectively accounting for about **[proprietary begin] [proprietary end]** of the deployed switch resources.

2. Collocations and Related Equipment

33. A. Collocations. AT&T has collocations in more than 1000 ILEC LSOs nationwide and nearly all are active and used to provide local voice service.[9] In evaluating these numbers, it is important to bear in mind that by comparison there are in the range of 14,000

[9] In addition, AT&T acquired approximately **[proprietary begin] [proprietary end]** collocations from Northpoint for use in providing advanced services. Of those collocations, AT&T has returned **[proprietary begin] [proprietary end]** to the ILEC, and an additional **[proprietary begin] [proprietary end]** are pending return. The majority of the remaining **[proprietary begin] [proprietary end]** have little to no equipment in them and are of marginal value to AT&T. Because they are not used at all to provide voice services, I have excluded these numbers from the numbers discussed in the text.

ILEC switches nationwide where customer loops are terminated.[10] Moreover, over **[proprietary begin] [proprietary end]** of AT&T's collocations are concentrated in **[proprietary begin] [proprietary end]** of the 66 cities in which AT&T provides service, so even the total number of collocations is a misleading measure of the reach of AT&T's local network.

34. Slightly more than **[proprietary begin] [proprietary end]** of the ILEC LSOs where AT&T has collocations, contain a "hub" collocation (*i.e.* a connection to an AT&T interoffice facility). AT&T transports traffic to and from virtually all of the non-hub collocations over ILEC facilities.

35. **[proprietary begin] [proprietary end]** of the LSOs where AT&T has collocated have a collocation cage where AT&T DLC is deployed. This demonstrates that AT&T is attempting to use those collocations to serve customers over traditional voice-grade UNE-loops.

36. B. Collocation-Related Equipment. In addition to establishing collocation cages, AT&T has deployed substantial amounts of equipment to make use of these cages. Specifically, AT&T has deployed a total of approximately **[proprietary begin] [proprietary end]**. In total, AT&T's DLC equipment has the capacity to serve almost **[proprietary begin] [proprietary end]** voice-grade loops, a fraction of one percent of the nearly 200,0000,000 voice-grade loops the incumbents serve. In addition, AT&T has deployed approximately **[proprietary begin] [proprietary end]** 3/1 multiplexers, and a total of

[10] See Table 10.1 (Switching Data, Total – All Companies) for 2000. Although the switch buildings that house the 14,685 listed switches will be less and the total number of switches existing at the end of 2001 will be somewhat lower than 2000, the fundamental point is not changed: AT&T can access loops directly in only 1 out of 14 ILEC LSOs.

approximately **[proprietary begin] [proprietary end]** OC-x multiplexers, of which approximately **[proprietary begin] [proprietary end]** are OC12, **[proprietary begin] [proprietary end]** are OC3, and the remainder are OC48.

37. Once again, this equipment deployment, although extensive, is highly concentrated in only a few cities. Thus, **[proprietary begin] [proprietary end]** of AT&T's **[proprietary begin] [proprietary end]** DLCs (**[proprietary begin] [proprietary end]** percent) and **[proprietary begin] [proprietary end]** of AT&T's **[proprietary begin] [proprietary end]** 3/1 multiplexers **[proprietary begin] [proprietary end]** are concentrated in only **[proprietary begin] [proprietary end]** of the 66 cities served by AT&T. Similarly, **[proprietary begin] [proprietary end]** of AT&T's **[proprietary begin] [proprietary end]** OC-x multiplexers **[proprietary begin] [proprietary end]** are concentrated in only **[proprietary begin] [proprietary end]** of the 66 cities AT&T serves, and **[proprietary begin] [proprietary end]** (**[proprietary begin] [proprietary end]**) are concentrated in **[proprietary begin] [proprietary end]** of the 66 cities.

3. Transmission Facilities.

38. A. Fiber. AT&T has deployed a total of 17,210 local fiber route miles nationwide, as of year end 2001, as compared with **[proprietary begin] [proprietary end]** route miles as of year end 2000 and **[proprietary begin] [proprietary end]** fiber route miles as of year end 1999.[11] To understand the relative magnitude of these numbers

[11] About **[proprietary begin] [proprietary end]** the fiber route miles that AT&T can employ are not a result of AT&T directly installing the fiber but, instead, is a result of Irrevocable Rights to Use for fiber owned by other parties.

compared to the ILECs' fiber deployment, one need only examine the most recent FCC Monitoring Report issued 10/2001 (Section 10, Table 10.2, page 10-14). According to that report, the ILECs have deployed 604,175 kilometers, or 362,505 miles of fiber.

39. As with the prior figures, AT&T's fiber route miles are heavily concentrated in only a few of the markets it serves. Over **[proprietary begin] [proprietary end]** of the total fiber route miles deployed by AT&T for use in providing local service is concentrated in only **[proprietary begin] [proprietary end]** of its markets.

40. The ramifications of these figures are obvious: Despite AT&T's huge investments over many years, it remains (as all other CLECs) heavily dependent on the ability to lease ILEC-owned transmission facilities, including high capacity fiber-based transport.[12] For all of the reasons discussed above and in the Fea-Taggart Use Restriction Dec., ¶¶ 9-20, it is economically impractical, and extraordinarily difficult, for a CLEC to deploy its own transmission facilities or find non-ILEC sources for such facilities. Even AT&T, one of the largest CLECs, has managed to duplicate only a tiny portion of the ILEC's outside plant, and its footprint covers only a tiny portion of the United States. Thus, for the foreseeable future, the only means for AT&T to establish a facilities-based presence in local markets is to lease ILEC transmission facilities.

[12] It is noteworthy that virtually all interoffice transport is fiber based, regardless whether the bandwidth sought by the CLEC is at a DS1, DS3 or a OC-n level. The impairment arises in putting the conductor in the ground, not in adding the electronics in the LSO. And it is the electronics that are provided in the LSO – or the interface – that determines the transport capacity. In fact, the incremental cost of adding capacity is much, much less than the TELRIC cost of plowing capacity into the ground. Thus, ILECs should be eager, rather than resistant, to sell transport capacity as UNEs because their incremental costs are well below the incremental revenues.

41. B. "On-Net" Buildings. As discussed above, in a minority of instances a commercial building may be connected directly to an AT&T ring, either wholly over AT&T facilities or through a combination of AT&T facilities and leased ILEC facilities. There are currently approximately 6,000 commercial buildings connected to AT&T's local network, out of the approximately 3 million commercial buildings nationwide (a fraction of one percent of such buildings). Once again, these buildings are heavily concentrated in a few cities: [10] cities served by AT&T account for more than half of the buildings reached by AT&T fiber.

42. AT&T customers in about **[proprietary begin]** **[proprietary end]** of the buildings AT&T serves (roughly **[proprietary begin]** **[proprietary end]** buildings) are served wholly over AT&T-owned facilities. Of the limited number of buildings that AT&T serves solely through its own facilities, **[proprietary begin]** **[proprietary end]** of them are served using a "fiber to the floor" arrangement. As a result, even though the building may be on-net for a particular customer in the building, AT&T may not be able to use those facilities to serve other customers in the very same building. Thus, the fact that a building is on-net does not mean all customers in a particular building are or may being served using those facilities. In fact, **[proprietary begin]** **[proprietary end]** of the buildings connected to AT&T fiber contain customers that AT&T also serves via ILEC access. That is because AT&T, unlike the incumbent, is rarely permitted by the landlord to locate equipment in a building's common space and be assured of the opportunity to provide service promptly to other customers in the building other than by leasing ILEC facilities. In fact, even a customer served by AT&T fiber to the building will often allow AT&T only to place "new' service on the AT&T fiber and require that existing services continue to be provided using the ILEC loop facility (or its access equivalent),

because it does not want to risk any service interruption that might result from shifting the existing services to the AT&T-provided facility.

43. C. Unbundled Loops. Although AT&T does not deploy any copper-wire loops of its own, and loops leased from the ILEC obviously are not AT&T's own facilities, it is nevertheless instructive to examine as well the number of unbundled loops AT&T has leased from the ILECs to provide UNE-L-based service. At the end of 2001, AT&T had leased more than **[proprietary begin] [proprietary end]** unbundled voice grade loops from the ILECs nationwide. However, three states alone – **[proprietary begin]**

[proprietary end] -- accounted for more than half of those loops.

C. AT&T Has Made A Serious Commitment To Facilities-Based Entry.

44. As the above figures make clear, AT&T has made – by any measure – a substantial commitment to facilities based local entry, having invested billions of dollars to deploy switches, collocations, and transmission equipment and facilities, to say nothing of the expenditures it has made establishing the "back-office" billing, customer-care, and marketing organizations necessary to provide local service over those facilities. It must be stressed that none of these capital expenditures include the substantial recurring costs that AT&T incurs every year to lease the thousands of loops, transport facilities and multiplexers on which it relies to complete its local network.

45. The facilities and equipment described in the preceding section of my declaration reflect a substantial – and growing – expenditure of capital by AT&T. To begin with, AT&T has invested over **[proprietary begin] [proprietary end]** in deploying 128 local

switches, at an average estimated cost of **[proprietary begin]** **[proprietary end]** per switch.

46. Based upon an estimated cost of approximately **[proprietary begin]** **[proprietary end]** to establish, AT&T's current collocation investment exceeds **[proprietary begin]** **[proprietary end]**. And this figure does not reflect the annual costs of collocation rentals, which are well in excess of **[proprietary begin]** **[proprietary end]** (at any average monthly rental cost of approximately **[proprietary begin]** **[proprietary end]** per cage). AT&T's investment in multiplexing and transmission equipment deployed in those collocations is similarly substantial: AT&T's expenditures on DLCs, 3/1 multiplexers and OC-x multiplexers represent an additional investment of over **[proprietary begin]** **[proprietary end]** million.

47. Finally, and most significantly, at a cost of approximately **[proprietary begin]** **[proprietary end]** per mile for installed fiber, AT&T has invested more than **[proprietary begin]** **[proprietary end]** billion in transport facilities.

D. AT&T's Incentive To Invest In Its Own Facilities Has Not Been Diminished By The Availability of UNEs.

48. The ILECs' claim that CLECs' ability to lease UNEs, particularly the availability of the UNE-P and high capacity loops and transport, diminishes the CLECs' incentives to invest in facilities is simply impossible to square with the facts. As shown below, notwithstanding the availability of the UNE-P in a state, AT&T has invested heavily in its own facilities and equipment.

49. Indeed, the ILECs' claims are most vividly undermined by a comparison of AT&T's facilities investments in New York with those in California. As the Commission is

aware, in New York the UNE-P is reasonably priced when compared to the price of retail services, and there is a significant amount of UNE-P entry. Indeed, AT&T alone currently provides service to approximately **[proprietary begin] [proprietary end]** residential customers in New York via UNE-P. By contrast, neither AT&T – nor, to AT&T's knowledge, any other CLEC – has thus far provided any residential services (and only **[proprietary begin] [proprietary end]** business services) in California via UNE-P, which has been priced so high as to be effectively unavailable.

50. If the ILECs' claims had any basis in fact, one would thus expect to see significantly greater investment by AT&T in facilities in California than in New York, especially since California is larger and more populous than New York. In fact, the opposite is true. Despite the availability of the UNE-P in New York, and hence of unbundled switching, AT&T has deployed more switches, serves more buildings, terminates more DS0 and DS1 loops and deployed more fiber miles in New York than in California. Specifically, AT&T has deployed **[proprietary begin] [proprietary end]** of its own local switches in New York, as compared with **[proprietary begin] [proprietary end]** in California. AT&T serves **[proprietary begin] [proprietary end]** on-net building in New York compared to **[proprietary begin] [proprietary end]** in California. AT&T has deployed almost **[proprietary begin] [proprietary end]** DS0 terminations in New York and **[proprietary begin] [proprietary end]** DS0 terminations on DLC in California. AT&T has deployed **[proprietary begin] [proprietary end]** DS1 terminations in New York and **[proprietary begin] [proprietary end]** DS1 terminations in California on 3:1 multiplexes. And AT&T has deployed **[proprietary begin] [proprietary end]** and **[proprietary begin]**

[proprietary end] fiber miles per hub location in New York and California, respectively.[13] Thus, by any reasonable measure of capacity to serve, AT&T has deployed at least comparable facilities in New York as in California. And considering that California has far more switched access lines than New York (18,799,223 compared with 12,050,789[14]), on a proportional basis, AT&T's asset deployment in New York is more extensive than in California. AT&T has also invested heavily in Texas and Georgia, two other states where CLECs have made wide use of the UNE-P. Accordingly, AT&T's own behavior as a CLEC refutes the ILECs' claims that the availability of reasonably priced UNEs is a "crutch" CLECs lean on that diminishes their incentive to invest in facilities.

IV. EXISTING RESTRICTIONS AND LIMITATIONS ON AT&T'S ABILITY TO ACCESS AND USE ILEC NETWORK ELEMENTS HAVE CAUSED AT&T'S FACILITIES TO BE SIGNIFICANTLY UNDER-UTILIZED.

51. AT&T's commitment to deploying local facilities and equipment tells only half of the story. Despite AT&T's best efforts to market its services and to increase the amount of traffic handled by its own network, the reality is that AT&T's existing local facilities are significantly under-utilized. This under-utilization is principally the result of use restrictions and limitations that have prevented AT&T from obtaining access to ILEC network elements that are necessary to fill in existing gaps in AT&T's local networks. This, in turn, not only makes many of AT&T's existing deployments unprofitable and deters AT&T from expending additional capital to deploy new or expanded facilities, but it also demonstrates that AT&T remains vitally

[13] It is not appropriate to compare the absolute figures for fiber miles and hub collocations, because California is much larger geographically than New York.

[14] Armis form 43-08, Table II.

dependent on the ability to lease loops, transport and switching from the ILECs to serve customers.

A. AT&T's Facilities Are Significantly Under-Utilized.

52. In this section, we describe the actual utilization levels of various components of AT&T's network. Because traffic aggregation depends first and foremost on the number of customers a carrier can transfer onto its network equipment and facilities, it makes sense to begin by considering the portion of AT&T's network by which AT&T accesses the majority of its customers' premises: collocations.

1. Collocation Utilization.

53. As discussed above, *see supra*, AT&T deploys DLCs in its collocations to obtain access to unbundled loops. In light of the difficulties in provisioning service via hot cuts documented in the accompanying Brenner Dec., it is not surprising to discover that a great deal of AT&T's investment in DLCs has been stranded, and that the deployed equipment is substantially under-utilized.

54. The approximately **[proprietary begin] [proprietary end]** DLCs that AT&T has deployed in its network have a total capacity of **[proprietary begin] [proprietary end]** lines, *i.e.*, they can handle up to **[proprietary begin] [proprietary end]** unbundled loops. At present, however, despite years of effort by AT&T to provision service via unbundled loops, the DLCs have an overall utilization in the range of **[proprietary begin] [proprietary end]**.

55. Not surprisingly, the utilization level of AT&T's DLCs varies somewhat from market to market, from less than **[proprietary begin] [proprietary end]** utilization in some areas to **[proprietary begin] [proprietary end]** in others. The upper range, however, is not representative: more than half the markets have DLC utilization at or below **[proprietary**

begin] **[proprietary end]** and more than **[proprietary begin]** **[proprietary end]** of the markets have utilization at or below **[proprietary begin]** **[proprietary end]**. By contrast, an efficient level of utilization, according to the FCC's synthesis model, is between 80 and 85%.

56. Even when combined with traffic originating on the higher capacity DS1 leased loops, AT&T's collocations are substantially under utilized. As stated earlier, AT&T has deployed a total of **[proprietary begin]** **[proprietary end]** 3/1 multiplexers in its collocations. Those multiplexers take DS1 level traffic from the "back" of the DLCs as well as from DS1 customer loops terminating at the collocation and multiplex the combined traffic to a DS3 level. The 3/1 multiplexers deployed by AT&T operate at an approximate utilization rate of **[proprietary begin]** **[proprietary end]**.

57. It is also noteworthy that although DS1 loop access is less prevalent in the general market than voice-grade loop access, AT&T has been much more successful in connecting customers that require high capacity loops (although often it must do so using non-cost-based special access services rather than UNEs). This is demonstrated both by the fact that AT&T's collocation equipment supports about **[proprietary begin]** **[proprietary end]** DS1 termination for every **[proprietary begin]** **[proprietary end]** voice-grade terminations[15] and also by the fact the DS1 equipment utilization is twice that of the voice-grade equipment. This further demonstrates that the current manual hot cut process inhibits the movement of voice-grade customers to CLEC switches.

[15] DS1 terminations carry up to 24 voice grade equivalents.

2. Self-Deployed Transport Utilization.

58. As described above, AT&T has deployed its own transport to about **[proprietary begin] [proprietary end]** collocations, *i.e.* the hub collocations that are connected to AT&T's various fiber rings. The utilization of AT&T's self-provided local transport is, in aggregate, about **[proprietary begin] [proprietary end]**. This utilization level was derived by calculating the amount of DS3 equivalent traffic on the rings as a percentage of the usable capacity of the ring. In contrast, interexchange and backbone utilizations are in the range of 75% to 80%. Thus, under AT&T's network assumptions, AT&T's local transport facilities are under-utilized by about **[proprietary begin] [proprietary end]**.

3. Switching Utilization.

59. Given these over-all figures, it is not surprising that AT&T's switches, based on year-end 2001 figures, are experiencing a utilization level of only about **[proprietary begin] [proprietary end]**. Although actual utilization varies by switch, more than one-fourth of AT&T's local switches have utilization under **[proprietary begin] [proprietary end]** and the vast majority had utilization under **[proprietary begin] [proprietary end]**. To put this into perspective, the FCC-sanctioned efficient level of utilization for a switch is 94% and switch capacity relief is not considered until utilization rates between 80% and 90% are achieved. Consistent with the transmission facilities, switching resources are being under-utilized by **[proprietary begin] [proprietary end]** (*i.e.*, **[proprietary begin] [proprietary end]** experience compared to 80% target).

60. It is important to stress that switches, as compared to transmission facilities and collocations, are *relatively* easy to deploy (although other impairments may still make the use of each difficult). Once AT&T has established a fiber ring and collocations and at least one switch, it can hold off deploying additional switching capacity until it determines that in fact there is

sufficient traffic to justify the deployment. What this means is that the utilization level of AT&T's switches somewhat overstates the utilization level of AT&T's facilities as a whole.

B. The Under-Utilization Of AT&T's Facilities Results Directly From The Restrictions On Accessing And Using The ILECs' Loop And Transport Facilities.

61. AT&T obviously deployed its facilities with the expectation that it would be able to achieve an efficient utilization level within a reasonable amount of time. AT&T, as a business operating in (what it hoped would be) a competitive marketplace, began by making what it believed were conservative estimates of demand. AT&T then derived projected revenues from that demand, and, on the basis of estimates of the potential size and timing of the projected revenue stream, made its investments in facilities.

62. We do not believe that AT&T's estimates of demand were overly optimistic if our efforts to serve the market had been unencumbered. The disappointing utilization levels of AT&T's facilities instead reflect the significant – and unexpected -- impediments AT&T has continued to face in its attempts to gather and aggregate sufficient levels of traffic to use its existing facilities efficiently, and to justify additional deployments. Although AT&T faces many different obstacles in attempts to compete against entrenched bottleneck monopolists, three primary impediments are relevant to the issues before the Commission in this proceeding: the hot cut problem, the increasing deployment of DLC loops by the ILECs, and the restriction on the use of loop-transport combinations and on co-mingling.

1. The Hot Cut Problem.

63. As explained in detail in the accompanying declaration of Ellyce Brenner, the manual hot cut process for provisioning UNE loops is plagued with problems that significantly impair AT&T's ability to provide service to customers over leased voice grade loops, and that substantially impede AT&T's current ability to use its existing facilities, much less justify the

deployment of additional switches, collocations or transport facilities. Brenner Dec., Part IV.A.2.

64. As the Commission is aware, the hot cut process is a purely manual process. As a result, the process is costly, error prone, slow and results in significant delays. Moreover, the process is inherently limited as to volume and cannot support full-fledged competition. Thus, even if hot cuts could be performed perfectly, the inherent quantity limitations and high costs of the process still pose a significant barrier to facilities-based competition.

65. Nationwide, AT&T's experience over two years of attempting to provision service via unbundled loops was that it took an average of 45 days – a month and a half – from the time a customer signed up for service until service could be initiated. Over half of the customers that AT&T had succeeded in signing up, grew frustrated with such delays and canceled service before it was even initiated. Brenner Dec., Part III.D.1.

66. Even worse, the manual hot cut process results in a non-trivial service outage for between 6 and 9 percent of customers. Customers naturally are aware of this risk, and many decide not to sign up for competitive service as a result. *Id.*

67. Moreover, even when customers are willing to brave the risks and sign up for service, and even where they do not cancel their order prior to installation, the undisputed reality is that the manual provisioning process simply prevents CLECs from mass-marketing their products. This means that even in the best of circumstances it would take years for a CLEC to build up a large enough customer base to efficiently use its facilities when it is dependent on customer-by-customer hot cuts. Thus, despite years of efforts, AT&T has been able to date to provision only about **[proprietary begin]** **[proprietary end]** unbundled loops

nationwide, as compared to over **[proprietary begin]** **[proprietary end]** residential customers provisioned over UNE-P in New York alone during a comparable time frame.

68. Finally, hot cuts are expensive. Even assuming that AT&T can retain a customer for an average of 30 months, based on a weighted average of costs in states in which AT&T has ordered unbundled loops, the cost of a hot cut adds over **[proprietary begin]** **[proprietary end]** per month to the cost of serving a customer, which is an amount sufficient to render service to many customers over UNE-L uneconomic.

2. The Increasing Prevalence of DLC Loops In The ILECs' Networks.

69. As the Commission is aware, for the last decade the ILECs have been pushing fiber closer to their customers' premises at an increasing rate. This is accomplished by replacing their traditional copper feeder with fiber feeder and placing multiplexing equipment (DLC functionality) at the interface of the copper distribution and the fiber feeder. This creates a loop architecture in which traffic from multiple copper sub-loops is multiplexed onto a common fiber feeder facility that connects to the ILEC LSO. While deployment of DLC transmission electronics substantially increases the efficiency of the loop's transmission capacity, and reduces the ILEC's costs, the architecture makes it cost-prohibitive for a CLEC to acquire customers served over those loops. Even where a copper spare is available, the use of copper sharply reduces the quality of the services that the CLEC will be able to provide. Gerszberg Dec. Part III.A. Where no copper loop is available, the options available for serving the customer take too long to implement and are too costly. *Id.* See generally Brenner Dec. Part IV.A.2.ii. At the end of 2000, the former RBOCs served approximately 22 percent of their customers over DLC loop architectures. This means that CLECs today are effectively prevented from serving about a quarter of the analog loops, absent UNE-P. As competition spreads from urban areas, where

loops are short, to suburban areas of the country, the magnitude of this problem will become even more pronounced.

3. Use Restrictions and the Ban on "Co-mingling."

70. A third fundamental impediment to AT&T's ability to aggregate traffic volumes is one that the Commission itself created at the principal urging of the incumbents: the restrictions on using loop-transport combinations and the ban on so-called "co-mingling" of local and access traffic. In order to aggregate sufficient traffic volumes to efficiently utilize its own facilities, AT&T has to be able to obtain efficient access to customers' premises, which AT&T often does by deploying collocations at the ILEC central office serving an individual customer's premises. In many cases, however, there is insufficient demand at a particular remote end office to make it possible for AT&T to establish a collocation. In such common circumstances, AT&T can only obtain access to the customer by leasing a combination of loop and transport facilities from the ILEC, and using that combination to connect the customer's premises to one of AT&T's hub collocations.

71. The Commission's rules, however, practically prevent CLECs such as AT&T from leasing combinations of loops and transport as UNEs, unless AT&T can satisfy a so-called "safe harbor" test ostensibly designed to show that the combination is being used "predominantly" to provide local exchange service. My colleagues Alice Marie Carroll and Cynthia Rhodes have previously explained why those "safe harbors" are unworkable and why it is virtually impossible for a CLEC to be able to satisfy them -- even when it is using the combination to provide local exchange service. *See* Carroll-Rhodes Use Restriction Dec., ¶¶ 9-22. As a result, in virtually all cases, AT&T can only obtain access to combinations of loops and transport elements by purchasing such combinations out of ILEC special access tariffs. The rates

in those tariffs – by the ILECs' own admission – are well above cost, and thus make reliance on loop-transport combinations unprofitable for many customers that AT&T might otherwise be able to serve profitably. The Commission's use restrictions thus significantly impede CLECs' ability to aggregate traffic at their collocations and thus use their facilities efficiently and profitably.

72. Even in the relatively rare circumstance that AT&T can satisfy the "safe harbors" with regard to a particular customer and lease a loop-transport combination at UNE rates, the Commission's ban on "co-mingling" UNE and access transport circuits further frustrates the ability of CLECs to aggregate traffic efficiently in their networks. As a result, AT&T must either purchase separate "parallel" transport facilities, one at UNE rates and the other at special access rates, which requires AT&T to purchase more capacity than it needs, or purchase the entire transport circuit at special access rates, thus further inflating AT&T's costs of service compared to the ILEC's and rendering many potential customers unprofitable.[16] Once again, this ban, which is wholly artificial and concededly was enacted to protect ILEC subsidies, significantly impairs AT&T's ability to acquire customers and aggregate traffic on its network.

C. <u>These Problems Are Exacerbated By Prevailing Conditions In the Capital Markets</u>

73. The problems created by the hot cut process, use of DLC, use restrictions, and the ban on co-mingling, are exacerbated by the capital "crunch" facing all CLECs, including AT&T. New construction requires significant up-front capital investment and, as a result, the CLEC must obtain a source of funds for the project. The decision to invest capital in new construction

[16] Even when CLECs can satisfy the safe harbors and wish to substitute a UNE loop and transport combination for an existing special access circuit, the exorbitant termination liabilities that would apply under the ILECs' tariffs have the practical effect of preventing CLECs from migrating their traffic to UNEs.

is based on fairly simple business case principles. AT&T balances the amount of money needed for the construction, the availability of capital, the average payback time on the capital, the maximum contributions that could result from such construction, and the potential risks and returns of other projects competing for the same limited construction dollars. As part of the business case, AT&T considers its existing facilities, including collocations, and how new construction will maximize the usage of those facilities. AT&T then must balance these factors against both the customer's willingness to wait for facilities, and the willingness of a customer to enter into a term contract sufficient to meet AT&T's cost recovery guidelines as well as the potential to utilize the facilities in light of the other substantial impairments discussed above and in AT&T's comments.

74. But a sufficient pool of capital is often difficult to obtain at rates that would conform to prudent business practices. Moreover, capital that is available will generally be allocated first to ventures that have the potential to generate new revenues. As a result, construction projects to replace existing leased facilities will generally be deferred in preference to other projects that gain new customers or increase spending by existing customers. Even then the construction project must have higher potential returns (lower payback periods) and/or lower risk compared to other projects competing for scarce capital funding. In our experience, the planned local construction program has always exceeded the available capital, typically by as much as **[proprietary begin]** **[proprietary end]** of funding available at the beginning of the budget year. However, due to reprioritizations to address customer demands and/or in order to better assure the ability to meet short-term earnings expectations of the financial

markets, by year's end, the funding available for projects is typically cut by another **[proprietary begin] [proprietary end]**.[17]

75. The changing economic environment has also radically changed both the availability and cost of capital. In the past, both the capital markets and vendors served as ready sources of capital, but the downturn in the economy, coupled with the now almost routine failures of CLECs, have made investors wary. Likewise, vendors (including Nortel and Lucent), faced with their own business uncertainty, have dramatically changed contract terms from consignment sales of equipment to requiring cash up front on all purchases. This change alone is likely to reduce AT&T's purchases of equipment by as much as **[proprietary begin] [proprietary end]**.

76. The added cost of capital means that business cases that might otherwise have been profitable are now no longer so, and that margins as a whole are far tighter. Any artificial rules – such as the use restrictions and ban on co-mingling – which increase AT&T's costs thus have a heightened effect in this environment, because businesses must show that their plans are clearly profitable, and not simply marginally profitable, in order to attract capital.

77. We cannot stress enough that this is a problem that all CLECs face, including AT&T. The fact that AT&T's local networks division is a part of a larger enterprise does not mean that it is immune to the need to attract capital, or that capital is plentiful. Indeed, just as

[17] Even in circumstances where the economic threshold for self-supply is met, there are factors that may preclude construction. For example, in some instances, the incumbent is providing service to the end user under term or volume discount arrangements that include substantial termination penalties that make switching to a CLEC prohibitively expensive. In other instances, AT&T is unable to use its own facilities because of limited collocation space or collocation equipment capacity.

any other business, AT&T must act in a rational economic manner and cannot affort to invest capital where it cannot expect to earn a return that reflects the current market cost of capital.

VERIFICATION PAGE

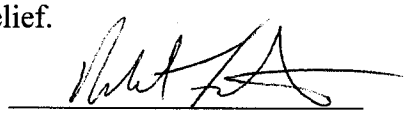
I hereby declare under penalty of perjury that the foregoing is true and accurate to the best of my knowledge and belief.

Michael E. Peak

April 2, 2002

VERIFICATION PAGE

I hereby declare under penalty of perjury that the foregoing is true and accurate to the best of my knowledge and belief.



April 1, 2002

EXHIBIT 1

Typical LNS Configuration